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Notes on *Natrix erythrogaster* from the Eastern and Western Extremes of its Range

Roger Conant 1

Two specimens of *Natrix erythrogaster* from extreme opposite ends of the range have recently been brought to my attention. One constitutes the first record for this water snake from the state of Delaware, and the other confirms the presence of the species in New Mexico, from which it previously was represented solely by a mutilated specimen collected in **1901** (USNM 32785) .

Delaware—Natrix *erythrogaster erythrogaster* (Forster)

Ever since the existence of *erythrogaster* in the Pocomoke River drainage of Maryland was reported (Conant, 1943) , the discovery of the species in Delaware has been anticipated. It has remained, however, for Jack B. Clinch, of the Selbyville School, to prove its occurrence there by sending me a preserved specimen with the following data : collected on April 23, 1953, a mile west of Selbyville, Sussex County, Delaware, by Donald Hudson, a former pupil of the school.

The locality was visited by me during the autumn of 1954 in the company of Clinch and Hudson. The latter reported that the snake, which had been sunning on the bank of a ditch between cultivated fields, was easily captured ; there had been water in the ditch then, but it was dry at the time of our visit. A short distance farther west the same ditch parallels a swampy woodland of a type that is common in the lower portion of the Delmarva Peninsula. Sweet gum, red maple, and loblolly pine are dominant, but there is a considerable admixture of other trees. A narrow strip of vegetation between the ditch and a sand road bordering the woods includes the same three species, plus an abundance of *Quercus nigra,* a scattering of magnolia, wild cherry, and beech, and a few *Nyssa sylvatica.* Sweet pepper bush and two species of *Smilax are* abundant.

'Zoological Society of Philadelphia, Philadelphia 4, Pa.

The ditch has a lateral arm penetrating into the woodland in addition to several other laterals that extend into nearby fields. These artificial water courses form part of the drainage system of Buntings Branch of the Bishopville Prong of the St. Martin River. Buntings Branch has its origin two miles to the northwest in the remnants of the great Cedar Swamp that was once estimated to comprise 50,000 acres with vast stands of cedar *(Charnaecyparis)* and bald cypress *(Taxodium)* . The swamp was a dominant feature of the region before the catastrophic conflagration of 1782 and the intermittent subsequent fires. Buntings Branch drains toward the east and the Atlantic Ocean. Drainage from the western side of the swamp enters tributaries of the Pocomoke River which empties into Chesapeake Bay. Although this species of snake is known to tolerate seasonal desiccation of its habitat and to wander short distances overland, it could, theoretically, travel from Selbyville to the Pocomoke River virtually without leaving the water (at least in the spring of the year) . Clinch states that he has seen red-bellied water snakes from other nearby localities, so the species may range through a considerable portion of southern Delaware.

That *Natrix erythrogaster* survived the ditching operations of the early 1940's, which altered the course of the Pocomoke River and drained a large portion of the river swamps, has been shown by Meanley (1951) . He collected an adult specimen near Powellville, Maryland, on April 2, 1950.

The snake from Selbyville, Delaware, is a female measuring 1240+ mm. in length (part of the tail is missing) . The coloration is plain very dark brown above ; the belly is reddish (faded) but with a heavy encroachment of the same dark pigment as the dorsum upon the antero-lateral portions of the ventrals. Scale counts: 23-21-19-17 rows; 154 ventrals ; 8-10 labials; 1-3 oculars ; 1-3,2 temporals. The specimen has been deposited in the collection of the American Museum of Natural History (AMNH 74532) .

New Mexico—Natrix *erythrogaster transversa* (Hallowell)

The water snake from New Mexico was collected during September, 1949, by Gene Patterson, of Carlsbad, who found it in shallow water along the Pecos River about six and one-half miles southeast of Carlsbad, Eddy County. He preserved it and took it to the high school where he was a student at the time. Recently the biology teacher, Cecil Unthank, gave it to Dr. William ***J.*** Koster, who has long been studying the herpetology and ichthyology of New Mexico and to whom **I** am indebted for the favor of sending me the specimen for examination.

Patterson reports (in *litt.)* that, during spring and autumn months, he has noticed water snakes at several different times in the same area,

which lies just below the Six-mile Dam. The snakes stay in groups around the small quiet pools where there are "reeds and overhanging limbs."

The specimen (now No. 101 in the collection of the Department of Biology of the University of New Mexico) is a female measuring 965+ mm. in length (part of the tail is missing) . After five years of preservation the snake is nearly plain light brown above, but traces of pattern remain, especially in the neck region where dark-bordered light crosslines appear (as they frequently do in this race of *erythrogaster)* as indications of the light areas between the dark dorsal blotches which were present when the snake was younger. The dorsal coloration extends downward to the ends of the ventrals where it ends abruptly at the plain light yellow venter. There are suggestions of light parietal spots and of a light post-parietal streak. Scale counts : 23-25-23-21-19 rows ; 144 ventrals ; 8-11,10 labials ; 1-3 oculars ; and 1-3 temporals.

Literature Cited

Conant, Roger

1943 *Natrix erythrogaster erythrogaster* in the northeastern part of its range. Herpetologica, vol. 2, p. 83-86.

Meanley, Brooke

1951 *Natrix erythrogaster in* the austroriparian zone of Maryland. Proc. Biol. Soc. Washington, vol. 64, p. 60.

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H. K. Gloyd, Director